

WHAT IS CLAIMED IS:

1. In a storage system including  
a first storage device control device that is communicably connected to a first information processing device, receives a first data write/read request transmitted from the first information processing device and conducts data writing/reading with respect to first storage devices in response to the request,

a second storage device control device that is communicably connected to the first storage device control device, receives a second data write/read request transmitted from the first disk control device and conducts data writing/reading with respect to second storage devices in response to the request, and

a second information processing device communicably connected to the first and second storage device control devices, wherein

the first storage device control device includes a first logical unit management table managing unit that stores a first logical unit management table in which is registered identification information of first logical units that are units identifying storage regions of the first storage devices,

the second storage device control device includes a second logical unit management table managing unit that stores a second logical unit management table in which is registered identification

information of second logical units that are units identifying storage regions of the second storage devices,

the first storage device control device includes a mapping management table managing unit that stores a mapping management table in which is registered correspondences between the first logical units and the second logical units and which the first storage device control device references when the first storage device control device receives the first data write/read request and determines whether the storage regions identified by the first logical units set in the request are the storage regions of the first storage devices or the storage regions of the second storage devices,

the second storage device control device includes a logical unit information transmitting unit that transmits, to the second information processing device, logical unit information including all or some of the identification information of the second logical units registered in the second logical unit management table,

the first storage device control device includes a mapping information transmitting unit that transmits, to the second information processing device, mapping information that is all or some of the mapping management table,

the second information processing device

includes a logical unit information receiving unit that receives the logical unit information,

the second information processing device includes a mapping information receiving unit that receives the mapping information, and

the second information processing device includes a mapping status information generating unit that references the received logical unit information and the mapping information to generate mapping status information that is information representing whether the second logical units are corresponded to the first logical units,

a storage device control device including the functions of the first storage device control device.

2. The storage device control device of claim 1, wherein the storage device control device includes a relay transmitting unit where

when the first data write/read request transmitted from the first information processing device is received, the relay transmitting unit determines, on the basis of the mapping management table, whether or not the first logical units set in the request are corresponded to the second logical units,

when the first logical units set in the first data write/read request are not corresponded to the second logical units, the relay transmitting unit conducts data writing/reading using the first logical

units as targets, and

when the first logical units set in the first data write/read request are corresponded to the second logical units, the relay transmitting unit transmits, to the second storage device control device, the second data write/read request using the corresponding second logical units as targets.

3. The storage device control device of claim 1, wherein

the mapping management table managing unit updates the second logical units and the correspondences between the second logical units and the first logical units registered in the mapping management table, and

the mapping information transmitting unit transmits the mapping information to the second information processing device in response to the fact that there has been an update.

4. The storage device control device of claim 1, wherein

the first and second storage devices are hard disk drives,

the first and second storage device control devices include a RAID control unit that manage, by the RAID format, the storage regions of the hard disk drives, and

the first and second logical units are corresponded to and configured by information

identifying the range of storage regions provided by the hard disk drives being managed by the RAID format.

5. The storage device control device of claim 1, further including

a channel control unit that includes a CPU, a memory and a communications interface for communicating with the first information processing device and the second storage device control device,

a disk control unit that conducts control relating to a CPU, a memory and data input/output with respect to hard disk drives functioning as the first storage devices,

a cache memory with respect to which the channel control unit and the disk control unit conduct data writing/reading, and

a service processor configured to include a CPU and a memory.

6. The storage device control device of claim 1, further including

a channel control unit that includes a CPU, a memory and a communications interface for communicating with the first information processing device and the second storage device control device,

a disk control unit that conducts control relating to a CPU, a memory and data input/output with respect to hard disk drives functioning as the first storage devices,

a cache memory with respect to which the

channel control unit and the disk control unit conduct data writing/reading, and

a service processor configured to include a CPU and a memory,

with the mapping information transmitting unit being realized by the CPU of the service processor executing a program stored in the memory.

7. A storage system including:

a first storage device control device that is communicably connected to a first information processing device, receives a first data write/read request transmitted from the first information processing device and conducts data writing/reading with respect to first storage devices in response to the request;

a second storage device control device that is communicably connected to the first storage device control device, receives a second data write/read request transmitted from the first disk control device and conducts data writing/reading with respect to second storage devices in response to the request; and

a second information processing device communicably connected to the first and second storage device control devices, wherein

the first storage device control device includes a first logical unit management table managing unit that stores a first logical unit management table in which is registered identification information of

first logical units that are units identifying storage regions of the first storage devices,

the second storage device control device includes a second logical unit management table managing unit that stores a second logical unit management table in which is registered identification information of second logical units that are units identifying storage regions of the second storage devices,

the first storage device control device includes a mapping management table managing unit that stores a mapping management table in which is registered correspondences between the first logical units and the second logical units and which the first storage device control device references when the first storage device control device receives the first data write/read request and determines whether the storage regions identified by the first logical units set in the request are the storage regions of the first storage devices or the storage regions of the second storage devices,

the second storage device control device includes a logical unit information transmitting unit that transmits, to the second information processing device, logical unit information including all or some of the identification information of the second logical units registered in the second logical unit management table,

the first storage device control device includes a mapping information transmitting unit that transmits, to the second information processing device, mapping information that is all or some of the mapping management table,

the second information processing device includes a logical unit information receiving unit that receives the logical unit information,

the second information processing device includes a mapping information receiving unit that receives the mapping information, and

the second information processing device includes a mapping status information generating unit that references the received logical unit information and the mapping information to generate mapping status information that is information representing whether the second logical units are corresponded to the first logical units.

8. The storage system of claim 7, wherein the second storage device control device includes

a channel control unit that includes a CPU, a memory and a communications interface for communicating with the second storage device control device,

a disk control unit that conducts control relating to a CPU, a memory and data input/output with respect to hard disk drives functioning as the second storage devices, and

a cache memory with respect to which the



channel control unit and the disk control unit conduct data writing/reading.

9. In a storage system including

a first storage device control device that is communicably connected to a first information processing device, receives a first data write/read request transmitted from the first information processing device and conducts data writing/reading with respect to first storage devices in response to the request,

a second storage device control device that is communicably connected to the first storage device control device, receives a second data write/read request transmitted from the first disk control device and conducts data writing/reading with respect to second storage devices in response to the request, and

a second information processing device communicably connected to the first and second storage device control devices, wherein

the first storage device control device includes a first logical unit management table managing unit that stores a first logical unit management table in which is registered identification information of first logical units that are units identifying storage regions of the first storage devices,

the second storage device control device includes a second logical unit management table managing unit that stores a second logical unit

management table in which is registered identification information of second logical units that are units identifying storage regions of the second storage devices,

the first storage device control device includes a mapping management table managing unit that stores a mapping management table in which is registered correspondences between the first logical units and the second logical units and which the first storage device control device references when the first storage device control device receives the first data write/read request and determines whether the storage regions identified by the first logical units set in the request are the storage regions of the first storage devices or the storage regions of the second storage devices,

the second storage device control device includes a logical unit information transmitting unit that transmits, to the second information processing device, logical unit information including all or some of the identification information of the second logical units registered in the second logical unit management table,

the first storage device control device includes a mapping information transmitting unit that transmits, to the second information processing device, mapping information that is all or some of the mapping management table,

the second information processing device includes a logical unit information receiving unit that receives the logical unit information,

the second information processing device includes a mapping information receiving unit that receives the mapping information, and

the second information processing device includes a mapping status information generating unit that references the received logical unit information and the mapping information to generate mapping status information that is information representing whether the second logical units are corresponded to the first logical units,

a recording medium in which is recorded a program for causing a storage device control device including the functions of the first storage device control device to realize the functions of the mapping information transmitting unit.

10. In a storage system including

a first storage device control device that is communicably connected to a first information processing device, receives a first data write/read request transmitted from the first information processing device and conducts data writing/reading with respect to first storage devices in response to the request,

a second storage device control device that is communicably connected to the first storage device

control device, receives a second data write/read request transmitted from the first information processing device and conducts data writing/reading with respect to second storage devices in response to the request, and

a second information processing device communicably connected to the first and second storage device control devices, wherein

the first storage device control device includes a first logical unit management table managing unit that stores a first logical unit management table in which is registered identification information of first logical units that are units identifying storage regions of the first storage devices,

the second storage device control device includes a second logical unit management table managing unit that stores a second logical unit management table in which is registered identification information of second logical units that are units identifying storage regions of the second storage devices,

the first storage device control device includes a mapping management table managing unit that stores a mapping management table in which is registered correspondences between the first logical units and the second logical units and which the first storage device control device references when the first storage device control device receives the first data

write/read request and determines whether the storage regions identified by the first logical units set in the request are the storage regions of the first storage devices or the storage regions of the second storage devices,

the second storage device control device includes a logical unit information transmitting unit that transmits, to the second information processing device, logical unit information including all or some of the identification information of the second logical units registered in the second logical unit management table,

the first storage device control device includes a mapping information transmitting unit that transmits, to the second information processing device, mapping information that is all or some of the mapping management table,

the second information processing device includes a logical unit information receiving unit that receives the logical unit information,

the second information processing device includes a mapping information receiving unit that receives the mapping information, and

the second information processing device includes a mapping status information generating unit that references the received logical unit information and the mapping information to generate mapping status information that is information representing whether

the second logical units are corresponded to the first logical units,

an information processing device including the functions of the second information processing device.

11. The information processing device of claim 10, further including a display device and a mapping status information display unit that displays the mapping status information on the display device.

12. A method of controlling a storage system including

a first storage device control device that is communicably connected to a first information processing device, receives a first data write/read request transmitted from the first information processing device and conducts data writing/reading with respect to first storage devices in response to the request,

a second storage device control device that is communicably connected to the first storage device, receives a second data write/read request transmitted from the first disk control device and conducts data writing/reading with respect to second storage devices in response to the request, and

a second information processing device communicably connected to the first and second storage device control devices, wherein

the first storage device control device

stores a first logical unit management table in which is registered identification information of first logical units that are units identifying storage regions of the first storage devices,

the second storage device control device stores a second logical unit management table in which is registered identification information of second logical units that are units identifying storage regions of the second storage devices,

the first storage device control device stores a mapping management table in which is registered correspondences between the first logical units and the second logical units and which the first storage device control device references when the first storage device control device receives the first data write/read request and determines whether the storage regions identified by the first logical units set in the request are the storage regions of the first storage devices or the storage regions of the second storage devices,

the second storage device control device transmits, to the second information processing device, logical unit information including all or some of the identification information of the second logical units registered in the second logical unit management table,

the first storage device control device transmits, to the second information processing device, mapping information that is all or some of the mapping

management table,

the second information processing device  
receives the logical unit information,

the second information processing device  
receives the mapping information, and

the second information processing device  
references the received logical unit information and  
the mapping information to generate mapping status  
information that is information representing whether  
the second logical units are corresponded to the first  
logical units.